

IN THE CLAIMS:

1.-31. (Cancelled)

32. (New) An intumescing material comprising a phyllosilicate intercalation compound with an increased volume of expansion and/or a modified onset temperature obtained by intercalating at least one intercalate compound selected from the group consisting of lithium citrate, lithium formate, lithium acetate, sodium formate, sodium acetate, sodium oxalate, sodium gluconate, sodium methylate, sodium ethylate, sodium propylate, potassium formate, potassium acetate, potassium gluconate, potassium oxalate, ethylene diamine tetraacetic acid dipotassium salt, alcoholates of lithium or potassium with methanol, ethanol, 2-propanol, 2-butanol, tert.-butanol, benzyl alcohol, 1-decanol, ethylene glycol, 1,3-propane diol, 1,4-butane diol and glycerol, by cation exchange in native, expandable vermiculite, hydrobiotite and/or chlorite-vermiculite having a mean particle diameter of 0.1 mm to 10 mm as phyllosilicate in a solution of said intercalate compound; separating the phyllosilicate intercalation compound formed from the suspension; optionally washing; and drying; for use as intumescing, fire-retarding additive and/or in expanded form as additive for producing flame-retarding materials.

33. (New) The intumescing material according to claim 32, wherein the phyllosilicate intercalation compound comprises expandable vermiculite, hydrobiotite or chlorite-vermiculite having a mean particle diameter of 0.33 mm to 1.0 mm.

34. (New) The intumescing material according to claim 32, wherein the phyllosilicate intercalation compound is produced using water, an aliphatic or aromatic alcohol, an ether, an ester, an alkane, a cycloalkane, an aromatic solvent or an amine as a solvent.

35. (New) The intumescing material according to claim 32, wherein the phyllosilicate intercalation compound is produced using the intercalate compound in a concentration of 0.01 mol to 5.0 mol/1 in the solution.

36. (New) The intumescing material according to claim 35, wherein the concentration of the intercalate compound is 0.1 mol/l to 1.0 mol/l in the solution.

37. (New) The intumescing material according to claim 32, wherein the phyllosilicate intercalation compound has been produced at a temperature of the intercalation reaction of 10°C to 150°C.

38. (New) The intumescing material according to claim 37, wherein the phyllosilicate intercalation compound is produced at an intercalation temperature of 25°C to 60°C.

39. (New) The intumescing material according to claim 32, wherein the tie of the intercalation reaction is 65 to 144 hours.

40. (New) The intumescing material according to claim 32 wherein the reaction time for the intercalation reaction is 10 to 36 hours.

41. (New) The intumescing material according to claim 32 wherein the phyllosilicate intercalation compound is separated from the suspension by filtration or decanting, optionally followed by solvent washing and drying.

42. (New) The intumescing material according to claim 32, wherein the drying is carried out at room temperature in a vacuum or in a drying cabinet at elevated temperature.

43. (New) The intumescing material according to claim 42, wherein the drying is carried out in a drying cabinet at 60°C to 80°C for 1 hour to 12 hours.